Commentary

One question the AFX team is often asked is “can strengthening your feet help with problems at the knees, hips and back?” We can answer this question with a definite 'yes'; common ailments such as patellofemoral syndrome (pain in the front of the knee), iliotibial band syndrome (pain on the outside of the knee, thigh, or hip), and lumbosacral pain (pain in the lower back) are often a result of musculoskeletal misalignment, which can be significantly affected by foot and ankle strength.

The feet are the foundation of human movement and, like any foundation, they need to be strong to support the weight of the structure above them. If the muscles in your feet are weak, it can result in weak arches, which can lead to poor foot posture when walking or running. This, in turn, can place added stress on all the connecting joints of the skeletal structure located directly above the feet, including the ankles, knees, hips, and spine, and potentially can lead to serious injuries and ailments.

By properly strengthening the muscles of the foot and ankle, many of these injuries and ailments can be prevented. Increased strength of the intrinsic muscles of the foot (i.e. muscles fully contained in the foot and toes) will provide greater support to the arch of the foot during walking and running, while balanced strengthening of the ankle stabilizer muscles can help to further improve foot posture.

In addition, daily activities such as walking, running, and playing recreational sports will be easier to perform because the body will be in better overall alignment, so you will be able to move more efficiently with less stress on the joints. You will also be able to maintain your balance better, so there will be less risk of ankle sprains or falling and injuring yourself.

Supporting research from: Brigham and Women's Hospital (A teaching affiliate of Harvard Medical School) states:

Are Feet at Fault for Back, Hip, and Knee Woes?

If you are having problems with back pain, shin splints, knees, or hips, look to your feet. Although these ailments might seem totally unrelated to one another, they can sometimes be linked to problems that start with your feet and how they're built, foot experts say.

When you walk, you put the force of as much as five times your body weight on each foot. If the foot doesn't absorb that shock or redistribute it properly, you can develop problems elsewhere.

Often this occurs in people who have hyperpronated feet, also called "flat feet," because the arch appears to be flattened and closer to the ground. If you have flat feet, your feet tend to roll inward when you walk or run. That extra motion creates secondary stresses farther up in your legs, podiatrists say. Because of the excessive foot motion, the muscles on the inside of your leg must work harder to pull your foot up. When you use these muscles excessively, particularly in running, shin splints can occur.

Flat feet can lead to tendinitis in your Achilles tendon, which runs down the back of your leg, because that tendon has to compensate when you push off with your feet.

Poor foot architecture can also stress the medial collateral ligaments of your knee. And although flat feet don't cause you to be knock-kneed, people who are knock-kneed sometimes have flat feet; their feet rotate inward to compensate for the misalignment of the knees.

Another foot problem is hypersupination--the feet are rolled outward with what seems to be a rather high arch. Hypersupination causes stress to muscles on the outside of the leg.

Either flat feet or hypersupination also can lead to problems in the hips and lower back. ~

If, however, you are suffering from knee, hip or back problems, consult with a qualified healthcare professional prior to starting any strengthening or activity program.

~ Rick Hall, M.Sc.